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ABSTRACT

The International High School opened on the campus of LaGuardia Community College in September 1985, with the goal of developing basic English language proficiency through a program of substantive study in a high school/college curriculum for students of limited English language abilities. This curriculum guide presents seven areas of discussion, with each section including a presentation of the philosophies and methods to meet the goals of that area. The main obligation of the English language program is to develop the necessary skills to compete successfully in an English speaking society while maintaining native languages and cultures. A section on the Integrated Learning Center shows how courses are identified by a theme and then via concepts and skills (study and cognitive). A breakdown in this manner of eight required courses is given. While the principle instructional responsibility of the social studies program is to develop and improve English language proficiency, the emphasis of that instruction combines programs on the students' native languages and cultures with U.S. studies. The career education program is designed to aid students in finding a productive and self-fulfilling position in the workplace through classes designed to enhance their job acquisition skills and on-site internship programs. The science program aims at developing an understanding of the scientific process and method and the development of scientific communication skills. The foundation of the mathematics program rests on infusing English-as-a-Second Language techniques into the mathematics curriculum, and through a program of Sequential Mathematics classes develop mathematics skills for the students' personal, career, or college needs. A guidance program provides individual and group support for students. The final section provides an overview of The International High School. (PPB)

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Beyond High School Graduation Requirements:

SO 019975

What do students need to learn at The International High School?

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Preface

This curriculum publication represents the best efforts of the faculty of The International High School at LaGuardia Community College to answer the question "Beyond high school graduation requirements, what do students need to learn at The International High School?" This question is rarely posed to the professionals who are responsible for delivering educational services in our classrooms. It is a crucial question to consider as it raises the following issues:

What should be included in the curriculum?

How does a particular discipline fit into the overall needs of a student? How much time should be devoted to each discipline? How are the connections between disciplines established?

What is the balance between process and product, facts and inquiry?

Which topics should receive broad coverage and which should receive in-depth treatment?

To what degree should the curriculum be determined by teachers' interests, needs, and abilities? To what degree should it be determined by students' interests, needs, and abilities?

What are the standards for students? Should they be the same for all students? Are there minimum standards? What should they be? What defines success?

Should schooling focus on individual accomplishment or should it endeavor to encourage collaboration? What is the appropriate balance?

How do we know what students' needs are? What role do students, teachers, parents, and society have in defining those needs?

What should students do each day? What should their schedule be like?

In too many circumstances, teachers do not have the opportunity to address curricular and instructional issues such as these.

This project led us to reconsider and alter our schedule to include longer and fewer periods in order to encourage more in-depth exploration of content and a greater emphasis on collaborative activities in our classrooms. It increased our focus on student needs in the educational process. The process by which this, our third curriculum publication, was produced modeled one of the fundamental strategies implicit in our school philosophy, people learning and working collaboratively. We read, revised, and edited each other's writing, both within disciplines and across disciplines. It is a tribute to the faculty members at The International High School that they were willing to address such difficult questions, work together in groups, and share their insights through writing.

To a large degree, this product is an unfinished one. Our answers to the questions will undoubtedly be subject to change and modification. New questions will arise. The project has allowed us to see our relationships to each other, to students, and to our disciplines more clearly and, in some cases, to face our task with increased uncertainty. In order to meet the academic needs of our students we have learned to consider the students' familial, cultural, and affective needs as part of our mission. In the longer term, focusing on and establishing what students need to learn will allow us to plan better for those needs and develop more effective ways of evaluating our success. By making our thoughts available to our colleagues, our hope is that we may all begin to question what students need to learn in schools and, that by engaging in this process, we will identify ways to meet those needs more effectively.

The Curriculum Committee 1987-88

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Introduction

At some point in the early 1970's, our nation committed to educating all of its young people through high school. Without the fanfare that accompanied John Kennedy's commitment of a decade earlier to put a man on the moon, we embarked on this endeavor in the absence of a national debate on the nature of such an unprecedented goal, the curricular and instructional implications of this decision, and the additional resources which would be required to achieve universal high school graduation. It should come as no surprise, then, that today there is widespread agreement that our educational institutions have failed to live up to our expectations and that substantive and systemic reforms are needed if schools are to fulfill their mission.

The International High School at LaGuardia Community College was born of this need, and our efforts to answer the question "What do our students need to get from their high school experience?" take place within the context of a national focus on the need for school reform. While we have much to learn from the insights offered by others as we strive to identify students' needs and attempt to redefine school in a way that more effectively addresses those needs, we must avoid answers based on a mythology of what schools once were as we seek to formulate the questions which frame our common vision of what schools must become.

There is no societal institution more familiar but less well understood than school. This stems from the fact that there seems to be a national consensus on what schools are, but not on what schools are for. Despite a long tradition of local control of education in the United States, schools throughout the country all look alike and function in very much the same way. Ever-present time clocks, bell systems, delaney cards, and public address announcements serve to mask widely disparate and often contradictory perceptions of the purposes of education. Whether we believe that schools must provide youngsters with a foundation in the basic skills; humanistic perspectives; values clarifications; critical thinking abilities; cultural literacy; cross-cultural insights; job training; computer competence; historical consciousness; international understanding; second language proficiencies; concern for the environment; mastery of the scientific method; belief in God; commitment to democratic ideals; respect for authority; communicative capabilities; research techniques; appreciation of the arts; physical development; sexual awareness; health services; substance abuse prevention and rehabilitation; psychological counseling; minimum, daily nutritional requirements; and/or a safe and secure environment while parents are working, has been a matter of small curricular relevance. Our basic philosophical differences on the goals of schooling have not prevented school

from reflecting a remarkable unanimity of agreement that the most effective and efficient way of accomplishing any or all of these instructional objectives is through uniform exposure to a standardized curriculum which divides the scope of human knowledge into the separate and discrete subjects or disciplines that we have all learned to recognize as English, social studies, science, mathematics, occupational education, foreign language, music, art, physical education, and, for some, religion.

Students are thus exposed to bits and pieces of disconnected information in the hope that the whole is somehow greater than the sum of its parts. Teachers are pigeon-holed into their respective areas of expertise, defined by arbitrary certification and licensure requirements, in the belief that their collective but uncoordinated efforts will produce enlightened graduates. And school administrators labor in virtual isolation to rationalize and perpetuate a suspension of disbelief in the ability of their institutions to meet the needs of those who work and study in them. Is it any wonder that there exists a pervasive crisis of confidence in our schools?

The basic questions our young people ask are the same that have confronted men and women throughout history. Who am I? What is the nature of the world in which I live? How can I best live my life? What is my responsibility to other people? The knowledge available to us has become so extensive, and the technology necessary to access that information has become so complex and so expensive, that we can no longer pursue the answers to these eternal questions alone or in isolation. Nor can we afford to squander our educational resources in a narrow attempt to initiate the young into adult society. Rather, education can serve to enrich all of our lives as we work together to discover and share the truth, beauty, and wisdom that illuminate the universe and lend meaning to existence. Because of this, we must transform our educational institutions into intergenerational communities of learners, dedicated to an interdisciplinary pursuit of knowledge as a means of living life well.

While revisionist researchers continue to offer school improvement solutions based on abstract analyses of abstract measurements of abstract skills in the form of standardized test result comparisons, and retrospective reformers continue to trivialize education by compiling lists of requisite knowledge for admission to the exclusive ranks of educated members of society, the faculty at The International High School continues to strive to create a learning community in which teachers and students thrive, and teaching and learning flourish. This curriculum project, an important part of that collaborative effort, is perhaps best summarized by James Thurber's insight that, "It is better to know some of the questions than all of the answers."

Eric Nadelstern

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Contents

English.....1
Dina Heisler
Kathleen Rugger
Marsha S. Slater

The Integrated Learning Center.....13
Simon Cohen
Nancy S. Dunetz
Elyse Rivin
Ruthellyn Weiner

Social Studies.....23
Jackie Arandes
William Ling
Thomas Trabka

Career Education.....28
Mohamad R. Fakari
Ronni Green
Christine Maugendre

Science.....33
Philip Beers
David Hirschy
Ron VanCooten

Mathematics.....44
Alan Gordon
Felicita Santiago
Robert Weick

Guidance.....49
Lee Pan
Burt Rosenberg
George Tsiropinas

The International High School.....53
Eric Nadelstern

We wrote three separate answers to this question and then shared them. When we read each others' writing, we realized our philosophical similarities. We differed only in the specific areas we chose to stress. Therefore, we decided to collaborate on one product to represent the best thinking of our discipline. When we reread this product, we could not be sure which one of us had written which sentences. We had cut and pasted liberally from each others' drafts, weaving the individual words into our common ideas. The product you will read is truly a collaborative product.

Needs of Students

What are the needs of our students? Perhaps the best way to answer this is to start with what they are not.

Statistical research has shown that two years after high school graduation, graduates retain approximately 2% of the facts they learned during their high school careers. The same study points out that three years after graduation, they retain virtually no factual data from their four years of secondary education. If we concentrate on teaching facts and neglect teaching the process of how to create and develop ideas, most of what we teach will be meaningless for our students in the near future.

In the teaching of literature we must help students to see below the surface of literature and life and to look for hidden meanings in both. We want them to know that literature is not for someone else: it is for them. We want them to see authors as sources of comfort and advice as well as of information and amazement. Most importantly, they also need to see that there is a connection between literature and the other arts as well as between literature and politics. Furthermore, our students need to understand that through literature they can find connections to this strange American culture as well as to other cultures foreign to them. Our students need to experience the universality of emotions and thoughts that exists beneath the superficial differences among cultures.

The teaching of English should be integrated with other subject areas because literature and language are vital parts of a whole culture. Students need to see how the knowledge and skills from one discipline are applicable to another. For example: school journalism and current events; scientific reasoning and the essay; drama and immigration; mathematical problems and the paragraph; and literary conflict and conflict between nations. By

emphasizing the links between areas, students can see the same themes emerge and, thereby, expand their points of view.

Skills

Students need to develop the necessary skills to compete successfully in a largely English-speaking society. It is our obligation to provide the tools which allow them to become near-native users of English.

International High School students, for the most part, come to us having internalized the basic communicative skills of speaking, listening, reading, and writing in their native language. In order to have educational and career choices open to them, our students need also to gain competence in standard English.

Students should be encouraged to experiment with language. Students who are afraid to write or speak for fear of making a mistake will not learn a language: they will memorize stock responses for use in specific situations. Students should be encouraged to take risks in English and to view mistakes as opportunities to learn. Therefore, the teacher has to create an atmosphere of acceptance where value is placed on risk-taking. Students may then clarify what they already know and see their own experiences as valuable resources.

Students need to be able to communicate their past to others, to express their experiences of the present as well as their hopes for the future. They need to think, understand, and organize their lives on paper. The person must be known to others. As students' abilities grow, he should be able to think and organize ideas about life and literature in English and finally to master grammatically correct standard English. With the confidence of expressing important aspects of their own lives, students can then refine and develop English skills. This emotional identification with words on a page is a key goal.

Collaboration

Students need to receive correction in the mechanics of English when they are more advanced and able to hear and incorporate mechanical correction. Correction should be individualized as much as possible, since not all students are ready to make use of the same knowledge at the same time. Such individual instruction is best facilitated by group work. As a matter of course, small writing groups will ask the teacher to act as a

facilitator, to explain certain grammatical points as they come up. At that time, one-on-one writing conferences and mini-lessons can be very effective.

Students need to grow to accept responsibility. Assigning group and individual projects in which they must pose their own questions and find answers, search for resources and create materials, encourages such growth. They learn to rely on each other and themselves. Individual voices become stronger and more confident. They learn to ask for and accept help, make choices, and accept responsibility for their choices. This is essential training for their lives now and for the future.

Emotional Needs

In order for our students to learn effectively, we must be aware of their current emotional needs as well as their past experiences. In this regard, we make the following assumptions:

1. Adolescence is a time of great emotional turmoil.
2. International High School students have all suffered separation trauma.
3. Students have different learning styles.
4. Most incoming students have had some schooling and can exhibit appropriate classroom behavior.
5. Most students are motivated to learn English because it is the language of the country.
6. Most students will seek out social relationships with peers and see adult staff members as models.

One way to reduce student anxiety is to stress continuity. Since students have been uprooted and often traumatized, the continuity of teachers is important. They need to build up a relationship with adults from this culture in order to learn and to want to become part of it. The dislocation they feel should not be increased by switching role models every thirteen weeks.

There are also students whose emotional needs conflict with their academic ones. Some reasons which we have observed for this are: less classroom experience, lack of literacy in their first language and consequent difficulty in learning English, and less investment in acquiring academic proficiency. Sometimes students have all these impediments and sometimes one or two. Often this population has low self-esteem and highly developed defenses.

Our task, therefore, is to offer direct support both in class and out of class in order to increase a student's confidence in his or her own abilities.

This means:
--assisting them to find literature that is on their linguistic level,
--reassuring them of their intelligence and worth through oral and written feedback,
--administering a clear set of expectations which are consistently adhered to,
--pairing or grouping them with students who can assist them through translation and modeling of appropriate behavior,
--giving them immediate, individual feedback on progress made,
--designing activities which extend the literature and allow expression through other media: graphic displays, dramatic skits, native language arts, computer writing, journals.

Another visible group are those students who are more advanced in cognitive skills and second language acquisition. Some of their needs are:

--engaging them in dialogue about more sophisticated concepts, both through class discussion and written work,
--assigning different or additional work which challenges their intellect and creativity,
--training them in leadership skills through group work,
--reinforcing their own knowledge through peer tutoring.

Native Language

Certainly what can be said about all our students who are limited English proficient is that they need to continue developing their own native language, literature, and cultural heritage. This must be ongoing as we equip them to become fluent in the American English language and culture. We must continue to reinforce their native language knowledge. Currently, for example, we often request that they draw comparisons and contrasts between the literature studied and their own. This helps them deepen their insights and sharpen their appreciation of both cultures.

In addition, we need to introduce students to libraries, cultural associations, museums, and theaters which emphasize their native language arts.

Minimum Competence

By the time our students are graduating seniors, at the very least they must be able to demonstrate basic English proficiency if they are to pass the English RCT's and function effectively as adults in American society.

We define minimum competence by the following abilities:

--the ability to write coherent sentences using appropriate vocabulary,
--the ability to express a logically sustained opinion in essay form using well-constructed paragraphs,
--the ability to express feelings either personally (in journal form) or through interpretation or creation of literary characters,
--the ability to read, comprehend, and relate (orally and in writing) to written passages,
--the ability to compare and contrast concepts.

Beyond Competence

Students also need the opportunity to grow and learn beyond attainment of minimal communicative competencies. Every student should be able to explore the extent of his or her cultural and literary interests. We need to teach students how to access the resources that are offered by libraries, governmental and institutional resources, and private institutions.

They need to become aware of opportunities available to them in New York City. Class and school trips, films, slide shows, tapes of music, art posters, and talks by outside experts should supplement textual resources. If, for example, we study the literature of Korea in World Literature, we should have Korean students supply music and art works and explain some of the background relevant to what we have seen and heard and to what we will read. We should facilitate self-selected groups to do research which involves native students and/or parent experts.

Students need to develop their cognitive skills. They need behaviors, attitudes, strategies, skills, and concepts which will allow them to progress in higher education and in their chosen fields. We owe it to our students to respect and nurture their knowledge of the world by understanding their experiences. Addressing students' needs means expecting the very best from each student while giving them all the love, passion, and tools to do the job well.

Philosophy and Strategies

Our general philosophy of education stems from the belief in teaching English through content area study and that heterogeneous groupings are the best way for our students to learn the language.

In English classes we are teaching more than reading, writing, speaking, and listening. We are attempting to explore common patterns of theme and subject across cultures and to note important differences as well as explore the reasons for these differences. Although we believe published written content is important for its own sake, we also believe that students should learn how to think and write about their own experiences, as well as use the experience and knowledge of others. We recognize that we have within our own classes some of the best resources: each other. We have different ways to think linguistically about a topic and different cultural viewpoints. We believe in using the resources at hand.

When teaching English, our goal is to integrate the four skills of reading, writing, listening, and speaking as closely as possible and to do this using literature that is important in its own right. Limited English proficient students would much prefer to read simplified texts, to listen to books on tape, to watch the video version of literature. They are no different from many native English speakers in this regard. But we believe we do them a disservice if we allow them to graduate without grappling with text, without learning strategies to deal with text, and with it the pantheon of support skills such as word attack skills, using context clues, differentiating fact from opinion, understanding voice and point of view, and drawing inferences.

Although the content of an English class is important, we believe that if we only concentrate on teaching facts or specific applications of skills, most of what we teach will be meaningless for our students in the near future. In other words, if we concentrate on product and neglect the teaching of process, of the ability to create and develop product, we will do our students a great disservice, for we know that students will need to be able to produce a variety of written and spoken products. If we can teach our students the processes, we can enable them to produce those language products. If they internalize strategies for reading any text, for accomplishing any writing task, for working together effectively in any group and communicating with each other, then we have fulfilled their basic English language needs.

We must not, however, neglect their native language, literature, and cultural heritage while we are equipping them to become fluent in the English language and culture. We must constantly reinforce their native

language knowledge, drawing on their prior knowledge whenever appropriate. Requesting that students draw comparisons and contrasts between the literature studied and their own literature teaches comparison and contrast by direct example, making their education relevant to their past as well as to their future.

This is an enormous task and we are, of course, still experimenting with the best ways to accomplish it. Group work forms the basis for accomplishing this task. We believe using collaborative learning groups for the majority of classroom activities allows for flexible pacing in learning. Group work also creates more resources in the classroom than the teacher alone can provide. Students become resources for each other. Their self-confidence grows and with it, their willingness to risk.

Another method is to use our students as resources for each other: 1) as translation help, 2) as emotional support, 3) as guides to work and study habits, and 4) as access to vital information about the school and New York. Student suggestions for course content, for illustrative material for lessons, for running various aspects of the classroom are important.

We try to create an ongoing and open dialogue among teachers and students. There is more than one mind in a classroom. The human resource that is each student must be tapped to build students' self-confidence. This will eventually lead to student-to-student networking.

Students need to learn from each other. They need to know that they can be sources of information and that they can be trusted with their own learning. This can be facilitated by using different group configurations for different tasks, giving students opportunities to engage with everyone in the class in intimate and useful relationships. A student may have different partners for his/her reader response groups and for his/her writing group; for one group project and for a subsequent group project. This fosters interdependence and independence, and strength of mind and will. This can be facilitated by mixing classes across grade lines. Older, more experienced students can act as a maturing and calming influence on younger students.

As well as reading worthwhile and important texts, we encourage frequent writing so that students can gain fluency before moving to clarity. Students need real audiences so that they will want to communicate. Both clarity and correctness come from a personal investment in the communication of one's thoughts. Journals and homework assignments written for a teacher provide a real audience, but our students' audiences should be more numerous and varied. Frequent publication of written and oral work provide wider audiences and more opportunities for feedback and

acknowledgement. Work which involves using the wider community of native English speakers (e.g. writing to authors, interviewing faculty, surveying the college community) should be part of each class. Comments about the content of student work should regularly be provided rather than merely a grade or red pen marks. Such feedback can come from a variety of sources, not just the teacher.

Meeting Students' Needs

Focus on Reading and Writing

Because we perceive a schoolwide focus on reading across the disciplines to be essential, we suggest that there should be a class library in each subject classroom with a variety of books appropriate to that subject at different reading levels. This is essential for students who are not overly confident and for whom a trip to any large library may be overwhelming.

Teachers should model reading and writing as well as speaking and listening behaviors for students in all classes. Students learn from what we do, not just what we say. They buy into the process more readily when they can see we do. They will value reading if we do; they will value writing if we do. If we are good listeners and speakers, they will assimilate these behaviors more readily. They will move from fluency through clarity to correctness in their command of the English language if we support them by modeling fluency, clarity, and correctness. We should focus on reading and writing across the curriculum.

Just as work which involves reading and writing is not the province of English teachers alone, so attention should be paid to English mechanics in each discipline as well. Yes, "spelling counts" in the work students do in all disciplines. Student progress toward mechanical correctness can be facilitated by a faculty-wide emphasis on particular points of English mechanics by, for example, five minute mini-lessons on an error pattern identified and agreed upon by teachers across the curriculum for that week. However, these lessons should occur only if and when an appropriate context for the lesson presents itself during a class session that week, as grammar instruction out of context can be less than meaningful.

Literature is affected by what happens historically and politically. It is affected by scientific theories about the world. It relates to changing philosophies and paradigms of life. Classroom libraries in the different disciplines could include biographies of famous scientists and mathematicians, historical novels, journals, belles lettres, eye witness

accounts of history, diaries of the famous and historically interesting yet obscure, non-fiction how-to books, books which relate the history of the subject discipline, simple reference tools, and puzzle books; any printed material which the subject area specialists deem appropriate and of interest to limited English proficient students with curiosity and a desire to explore further in that field.

In addition, a comfortable and inviting reading room for the use of all students and teachers where sustained silent reading is possible would also support this emphasis upon reading. A readers club in which students and faculty members could discuss fiction and non-fiction could be an ongoing activity to support schoolwide interest in reading.

Interdisciplinary Courses

Because literature teaches us about human behavior, it should be read in the context of all the other disciplines. Therefore, we suggest that our school offer courses which look at real questions across subject areas, not just courses which address specific questions which have answers. To be genuine learning, the teacher needs to help students explore, discover, and collaborate on possible answers. The most exciting classes are those in which we discuss things for which the teacher has no answer.

Offering interdepartmental courses to explore such questions would model a different kind of thinking for our students, thinking which goes beyond obvious classroom walls and not only allows for, but requires risk-taking and experimentation. Language competence develops from experimentation. Meeting the need of our students to think critically must become part of our daily response to questions which challenge our tried methods of thinking.

Classroom Conditions

Ideally, teachers would have one room all day so that books and materials could be left in place. Students could browse or study in the room during preparation and lunch periods, getting special attention and tutoring from a teacher or other students in a comfortable and quiet setting. Each classroom should be large enough to allow for students to work in groups on different projects without stepping on each other and for the teacher to circulate easily and be heard in only one group at a time.

Computers

In order to support the current schoolwide focus on writing in all the disciplines, we need to have more computers available to students on an individual basis as well as for more extensive class and group work. We have noted the positive correlation between writing and revising with word processors and language acquisition, and we feel that additional computer access would provide a major support for increasing language skills.

Publications

Because we know that real audiences for our written communications are important and because students need to feel a sense of community, most English classes publish a class magazine each cycle. We need to publish and distribute written products to the wider school and college communities.

Modeling Collaborative Behavior

Group work provides a model of interdependence. In addition to structuring classes to include collaborative work whenever appropriate, teachers should model this behavior for students by being fully functioning members of committees and engaging in group projects with other teachers and students as well. Students, for example, should have input into course offerings. Students should also be included appropriately in the functioning of faculty committees.

Program Redesigning

In order to support the varied needs of students who run the gamut of native and English language literacy, the English faculty must offer a potpourri of courses in which all students can examine their own experiences and world views. Literature then becomes a medium for sharing, empathizing, communicating ideas and feelings at all ability levels.

We see a conflict between one teacher having responsibility for a group of students and age heterogeneity. On the one hand, we believe that if we were to be responsible for the same students for at least two years, we could see progress more clearly and gauge individual needs more successfully. We agree that this would help each student to build a relationship with each of

his/her teachers, so that each student could be truly known and have the all-important details of his/her life remembered and used to support those relationships. Yet, because of the support systems needed by each student as he/she is eased into the smaller culture at The International High School as well as the larger culture of an entirely new country, we agree that teaching a course such as Introduction to Literature, our entry level course, for smaller groups of incoming students would be highly valuable.

On the other hand, we also have had experience with mixed grade classes and find them to be highly beneficial for students. Therefore, whenever possible, we suggest that classes be offered to students of any grade level so that they will be heterogeneous mixes of grades and ages as well as of English language ability levels. How this age heterogeneity could co-exist with a teacher being responsible for the same group of students over time is still a question that needs to be resolved.

We also agree that, in order to support intensive inquiry and collaborative work, each teacher should have a small teaching load, perhaps no more than eighty students, no matter what the age group.

Not all students learn at the same pace or are ready at the same time to learn the same things. Flexible scheduling and pacing seem to be the answer. Class periods must be longer than thirty-five minutes if students are to make effective use of heterogeneous grouping.

For those students whose needs are not met within the established structure of the classroom, for those who do not seem to respond positively to outreach, we need to have effective guidance and peer counseling, restructured class time, interdisciplinary courses, tutoring, student court. In order to address individual needs as well as group needs and to monitor individual progress, we suggest a restructuring of house so that house members get to know one another better and receive more individual attention.

Graduation Requirements

Learning a language is not learning a discrete set of facts. It is an ongoing process which requires an in-depth as well as longitudinal experience. We suggest a five year English/ Integrated Learning Center graduation requirement for each student entering The International High School. At least two cycles of English courses would be mandated each year. Integrated Learning Center should not be taken in lieu of English, as the content and foci of these sub-disciplines are different. This will mean that the

required number of credits for graduation will go from twelve to fifteen in English/ ILC. College courses can and should, of course, be included in this requirement for those who are able and wish to take them.

Conclusion

As individuals and as a discipline, we are committed to making our mission statement a statement of realizable goals. We believe that The International High School can and will address the needs of our students to prove that our mission statement is not only an ideal but an achievable reality.

The Integrated Learning Center

The mission of The International High School is "to enable each student to develop the linguistic, cognitive, and cultural skills necessary for success in high school, college, and beyond." Cognition precedes language. In order to acquire the language associated with a concept, one must learn the concept first. Cultural skills are manifested through language, both non-verbal and verbal. A listing of such skills would reveal an amazing commonality across disciplines, as would an investigation of the major themes and concepts addressed in all the curricular areas.

If we identify **Humans in Groups** as a major social science theme, then issues and areas of investigation would relate to such concepts as **dependence**, **interdependence**, and **independence**. Probing a bit further, we find the same concepts in biology, applying to the animal kingdom. But then they can also be found in other disciplines: botany, the physical sciences, mathematics, the arts, sports, etc. When our students enter The International High School, they bring with them experience in these three major concept areas. Each student functions dependently, interdependently, and independently at various times and in varying degrees. In order to fulfill our mission successfully, we must assist them in achieving and maintaining their ability to act, by choice, dependently, independently, interdependently within the school and the greater society. This entails their growing understanding of all related concepts as they apply to self and others and as they recur in the arts and sciences. It requires their ability to mainipulate the variables in order to become maximally fulfilled human beings.

Courses offered by The Integrated Learning Center are defined initially by theme. We then identify the concepts that are pertinent to the theme and, ultimately, the skills needed in order to acquire the concepts and implement the theme, including mechanical skills and higher-order thinking skills. The goal is not the acquisition of language, but language in a larger context. It is better to set our sights on the more abstract, long-term goals, and consider the instruction of practical knowledge as the tool for the implementation of these goals, than to focus on the skills themselves. The development of specific language skills such as writing and reading comprehension and their subskills cannot be sacrificed but must be embedded in thematic work.

We believe this can be accomplished best by applying these principles to the entire curriculum that we offer at The International High School. There are major themes and concepts that are powerful and universal, that transcend all curricula and populations. They should be identified by the

entire staff and spiralled through all content areas during a student's career at The International High School.

There is magic and pleasure in language and the ability to communicate with others. By helping students to understand the commonality of their experiences, by giving them reasons for wanting to communicate with one another, by enabling them to see that they share with others the motivation for mastering a new language, and by validating what they have already lived, they will be more prepared to make the transition from monolingualism to bilingualism and from monoculturalism to biculturalism.

The following is a partial list of concepts, strategies, activities, and skills which we use as a guide.

Concepts

act
causality (cause and effect)
change
commonality
conflict
control
cooperation
dependence
difference
discrimination
independence
interact
interdependence
interrelationship
modification
power
react
relationship
sequence
similarity
stereotype
time
values

Skills (study)

locating source material
locating information in the source material
skimming
finding the main idea
getting meaning from context
analyzing data
outlining
paraphrasing
summarizing
taking notes.
making citations
developing a bibliography
organizing
drafting
revising
proofreading
word processing
documenting

Skills (Cognitive)

1. Developing Concepts
    a. listing
    b. grouping
    c. labelling

2. Hypothesizing
    a. generating a hypothesis
    b. testing a hypothesis
    c. comparing feedback with a hypothesis
    d. accepting or rejecting a hypothesis

3. Inferring and Generalizing

4. Applying Generalizations

Required Courses

ILC/OSS 1: Orientation to School and Society

Orientation to School and Society is a course for all students entering The International High School. In this course students learn about each other and each others' cultures, about The International High School and LaGuardia Community College, about our neighborhood, and about living in New York.

ILC/OSS 2: Immigration

In Immigration students study their own immigration experiences through a combination of discussing, interviewing, writing, reading, singing, and viewing video presentations. Students compare their experiences with those of other immigrants and share those experiences with their classmates.

ILC/R: Research

In this course students research careers and colleges in order to plan their futures. It is required for all students in their junior year.

Electives

ILC/ALS 1,2,3: Advanced Language Skills

Advanced Language Skills is a laboratory for the ongoing development of reading and writing skills. It is required for students who need additional work in reading and writing in preparation for the RCT's.

OSS/CAC: Communication Across Cultures

Students are assigned to this course by teacher recommendation. Students study the very basics of the American language and culture: days of the week, holidays, seasons of the year, money, food, and other topics, as appropriate. It may be taken more than once and is available during the winter and spring cycles.

ILC/SE 1, 2: Structural English

Structural English is a grammar course of American English for students who already have a good command of the language. The purpose of the course is to investigate the subtleties and ambiguities of the American language. In the first term of the course, students study sentence patterns, verb tenses, modal and other auxiliaries, negation, and the passive voice. Each phase of grammar is analyzed for form and function. The second term of the course, open to those who have passed the first term or by permission of the instructor, deals with gerunds, infinitives, noun clauses, adjectival clauses, and adverbial clauses.

ILC/CP 1, 2: College Prep Research

College Prep Research is an elective open to seniors only. It enables them to continue the investigations they started in their first research course, or to work on research projects for high school or college courses. Students have the opportunity to undertake more advanced, technical writing, the kind they will encounter in college.

ILC/CCS: Crosscultural Studies

Crosscultural Studies focuses on literature, the arts, or sports, depending on student and instructor choice. The primary aim of this course is to enable students and teacher, acting collaboratively, to engage in the development of mutually defined concepts, skills, activities, and content. The course is open to all students and can be taken more than once.

The Integrated Learning Center
Course: ILC/OSS-1: Orientation to School and Society

Orientation to School and Society is a course for all students entering The International High School. In this course students learn about each other and each others' cultures, about The International High School and LaGuardia Community College, about our neighborhood, and about living in New York.

CONCEPTS	ACTIVITIES	AFFECTIVE COMPONENTS	SKILLS	SUPPORT FOR SUBJECT AREAS
Cooperation	Touring the college	Appreciation of being human among humans	Generating questions and statements	Computer literacy
Similarities	Interviewing	Pride in one's own culture	Word processing	Library skills
Differences	Describing self and others	Respect for each others' cultures	Responding to oral directions	Interviewing
Relationship	Making family trees	Sense of self-identity	Giving appropriate oral responses	School procedures
Time (past, present, future)	Locating areas on a map		Reading maps	
	Making time lines			
	Keeping personal calendars			
	Reciting poetry			
	Making scrap books			
	Making videos and montages			

The Integration Learning Center

Course: ILC/OSS-2: Immigration

In Immigration students study each others own immigration experiences through a combination of discussing, interviewing, writing, reading, singing, and viewing video presentations. Students compare their experiences with those of other immigrants and share their experiences with their classmates.

CONCEPTS	ACTIVITIES	AFFECTIVE COMPONENTS	SKILLS	SUPPORT FOR SUBJECT AREAS
Dependence	Writing Immigration diaries	Introspection	Finding the main idea	Basic study skills
Interdependence	Creating videos	Identity as a member of an immigrant culture	Getting meaning from context	Understanding of others in a world context
Independence	Writing and acting plays	Identity as multi-cultural	Summarizing	
Stereotype				
Causality	Reading		Organizing	
Change	Watching films		Drafting	
Conflict	Creating family portraits		Revising	
Discrimination			Proofreading	
Modification				
Interrelationship				
Power				
Control				

The Integrated Learning Center

Course: ILC/R: Research

In this course students research careers and colleges in order to plan their futures. It is required for all students in their junior year.

CONCEPTS	ACTIVITIES	AFFECTIVE COMPONENTS	SKILLS	SUPPORT FOR SUBJECT AREAS
Conflict	Researching	Self development	Locating source material	Research skills
Change	Recording			Career investigation
			Skimming	
	Writing to colleges		Outlining	
	Utilizing the resources of LaGuardia College		Paraphrasing	
	Incorporating library skills		Taking notes	
			Making citations	
			Developing a bibliography	
			Writing a research report	

The Integrated Learning Center

Course: ILC/ALS 1,2,3: Advanced Language Skills

Advanced Language Skills is a laboratory for the ongoing development of reading and writing skills. It is required for students who need additional work in reading and writing in preparation for the RCT's.

CONCEPTS	ACTIVITIES	AFFECTIVE COMPONENTS	SKILL	SUPPORT FOR SUBJECT AREAS
Similarity	Writing Reports Persuasive essays	Self-confidence	Hypothesizing	Enhanced language and study skills
Difference	Business letters		Inferring	
Causality	Reading science and social science material		Generalizing	
Relationship			Finding the main idea	
Commonality	Developing vocabulary through contextual clues and semantic mapping		Getting meaning from context	
			Skimming	
			Test-taking skills:	
			Following directions	
			Organizing your work	
			Drafting	
			Revising	
			Proofreading	
			Checking your work	

The Integrated Learning Center

Course: OSS/CAC: Communication Across Cultures

Students are assigned to Communication Across Cultures by teacher recommendation. Students study the very basics of the American language and culture: days of the week, holidays, seasons of the year, food, money, clothing, making a telephone call, telling time, and so forth. It may be taken more than once, and is available during the winter and spring cycles.

CONCEPTS	ACTIVITIES	AFFECTIVE COMPONENTS	SKILLS	SUPPORT FOR SUBJECT AREAS
Similarity	Reading and acting simple skits	Feelings of acceptance of differences	Getting the main idea from pictures	Basic level language skills to facilitate participation and learning across the curriculum
Difference	Reading and reciting poems	Pride in one's own culture	Using pictures to make an oral presentation	
Sequence	Reading and listening to songs	Respect for each others' cultures	Responding to oral and written instructions	Reinforcement of OSS-1
Time	Maintaining personal calendars		Speaking intelligibly in front of a group	
	Making scrapbooks		Reading brief narratives	
			Writing simple summaries	

Imagine....

leaving your native land and your childhood friends for a new and strange land,

being placed in a school where you not only have to learn a new language but perhaps even a new writing system,

having to learn new values, new customs and new mores,

adjusting to new realities, both negative and positive, and

being a teenager in this new environment.

This does not require a feat of imagination for many of our students at The International High School; it is their daily reality.

Students' Needs

Our first responsibility is to provide a place which our students can call a second home and in which they can feel that they are valued members of a family.

Our principal instructional responsibility is to develop and improve the English language skills of our students through the content of our courses. Only by empowering them with these skills will they become working and thinking individuals who will participate fully in the mainstream of American culture and not remain on its fringes. We hope that these new language skills coupled with cultural skills will eventually enable our students to contribute to America.

We also have the responsibility to preserve and promote our students' native cultures and languages. Our students bring with them these invaluable resources that can only enrich our social studies curriculum and our nation's immigrant history. We celebrate the cultural diversity that we find in our school and in our classrooms by consciously incorporating it into our instructional program.

Ours is a non-threatening environment in which no student remains anonymous; one in which teachers engage with all students, not just those in their class; one in which we get involved in the emotional well being of the students, not only in their academic achievements. We create an environment which accepts our students for what they are and who they are, and nurtures them as well-adjusted citizens of their adopted land by helping them develop intellectually as well as personally.

Meeting Our Responsibilities

Though we are bound by the same state mandates as other schools, we follow non-conventional methods to meet them. Because our student body is limited in its English language skills and because many come to our school with varying degrees of exposure to social studies, we stress the common and the familiar first, and then we introduce new material. Throughout the course we reinforce our lessons with various ESL methodologies, some adapted and many others developed by our faculty.

Given the facts that social studies is a varied and complicated subject and that our students have limited language skills, we feel a greater need to engage them. We focus our instruction to make students perceive the connection between themselves as individuals and the world around them. We constantly incorporate related and relevant materials found in newspapers, magazines, and current television programs which we think can help them become aware of the forces that have shaped the ancient world as well as the ones that are shaping our modern world. What is the meaning of the industrial revolution or the practice of imperialism to the student? What do these historical facts have to do with their lives, anyway? They also need to understand the factors that influenced their coming to the United States. Being aware of one's own circumstances helps one to understand similar circumstances in others, regardless of time or culture. Somehow, we should convey that social studies is not a sterile exercise in examining long-forgotten events, but that it is a vibrant discipline that can open innumerable opportunities.

The social studies faculty, however, senses a particular responsibility to help our students adjust to the dominant culture. Studying social studies has been a route for careers in journalism, law, media, education, business, industry and economics. We should emphasize this to reinforce another

important aspect of our school program, our personal and career development component.

The primary objective of the social studies faculty is to develop and improve the English language skills of our students through the content of our courses. We regularly incorporate English as a second language techniques and strategies such as our use of audio-visual resources and varied media to enhance and reinforce our lessons-everything from student-made dioramas to commercially available graphic aids films. Students are also encouraged to participate in experiential learning activities such as role-playing, simulations, and games. We must set up situations in which the participants are forced to use English and collaborative efforts in order to complete classwork. In this way, students can be successful regardless of their level of language ability.

Our Present Course of Study

The State Regents may mandate a certain sequence of study in Global Studies but, since our students come from all over the globe, we often give emphasis to the regions they come from. This helps to lessen our students' feelings of isolation or loss of contact with their homelands. It permits them to show expertise and share it with others in the class, especially at the beginning of their high school careers.

As a transition, the American Studies and Participation in Government courses give our students a philosophical and historical nuts-and-bolts understanding of how America functions as well as providing an historical perspective. Having learned about other countries, the study of what makes America special is always a revealing one for our students, especially at a time when their adaptation to the new culture is critical. Our students need to know how is it that when the rest of the world was run by all manner of despots, this nation saw fit to say "We, the people...."

In all our courses, we introduce theory starting once more from the students' own personal or family experience, then expand and apply it to the larger society.

The American studies curriculum does, however, require a higher level of language skills. This is needed so that students may work with original sources such as speeches and letters written by historical figures or with documents such as the Bill of Rights or the Constitution and even the new provisions of the immigration laws. Fortunately, American studies is

taken in the third year of their stay at The International High School; by this time, the students have already acquired the basic English skills to handle the challenge of this work.

Economics, another required course, is taught in the last year. This course provides another reality that will confront our students when they graduate, whether they go on to college or to work. Here they need to learn about the way business, government, consumers, and workers cooperate in the American economic system to create goods and services. Many of our students come from economic systems in which there is great scarcity. Their discovery of our system of free enterprise and competition is a revelation for them. Many cannot get over the fact that there are no lines in order to obtain basic needs in this society.

We emphasize elements of world geography as a means of promoting appreciation of the diversity of different cultures and peoples. This serves as the basis for awareness and comprehension of issues facing humankind such as world hunger, poverty, human rights, war and peace. We include a study of their own countries. We also refrain from spoon-feeding our students. With proper preparation, encouragement and guidance students can and will learn to carry out library research, and to find and use information correctly. They also learn to paraphrase rather than to plagiarize. This is an important skill because it demonstrates understanding and more-developed language skills.

Other Considerations

We propose that the social studies program be fully integrated with all other subject areas. In order to accomplish this, we should organize or restructure the school in more creative ways. We use the term "restructure" as suggested by Al Shanker, meaning the creation of new relationships for students and teachers and vice versa. This will definitely enhance the humanistic approach we feel is necessary in social studies. Perhaps individual class periods as we know them can be eliminated and blocks of time for interdisciplinary study be instituted. with one block in the morning and one in the afternoon. For example, there are various treatments that can be applied to the teaching of the Constitution. It can be taught as philosophy, literature, history, or all of these. It can be explored through the biographies of the Founding Fathers or compared with works of political thought that have influenced them.

Another way to restructure would be to have students take all their social studies courses in two or three months. Everyone on the teaching staff would be involved in social studies issues during those months of day long instruction. Trips could be scheduled to City Council meetings or court proceedings; visits could be made to policy makers or social service agencies. The social studies teachers would be the stars for these few months. In this way, students would be able to concentrate all their attention and energies on social studies. They would live with social studies, both in school and in their homework assignments. We hope that this would help students better appreciate this discipline. In addition, while all teachers are supporting the goals of the social studies faculty,they would have time to make thorough preparations for the months of concentrated instruction that they would be offering in turn.

A third way to restructure could be to make three mini-schools within our school, each with 100 students. Each mini-school would have its own teaching and guidance team which would be responsible for every aspect of education for each of the students in its care. The team would remain with the same 100 students throughout their entire high school career.

We also would like to see a different way of evaluating our students. We feel that letter grades inadequately reflect the student's experience in our school. Precisely because each individual's process is unique and is treated as such by us, he or she needs to be evaluated separately rather than compared to other students.

Conclusions

In sum, we want to see students graduate from The International High School not only with a first rate education, but also with the experience of a close family that has cared for and nurtured them. In that way we will have contributed not only to their intellectual formation but to their emotional formation as well.

Career Education

The career education program at The International High School is designed to prepare students for a successful, rewarding, and fulfilling life. We hope to facilitate this by offering a sequence of classes and internships which will focus on the objectives which follow. These objectives address the needs of adolescents in general, with a particular sensitivity towards limited English proficient students. The activities engaged in class prepare students to be responsible and effective outside the school environment. The experiences, skills, and self-confidence that are acquired while on internship help students make more meaningful decisions for their future by selection of appropriate careers and necessary schooling. Also, the maturation and personal development which often occur as a result of the internship experience are reflected in students' behavior and attitude upon their return to a full schedule of classes.

Students' Needs

The following objectives were created, based on the perceived needs of The International High School students.

I. Students need to gain personal awareness through introspection:
- -to become aware of one's interests, hobbies, abilities, aptitudes, strengths, and weaknesses
- -to gain an historical perspective of one's past and future
- -to understand different personality types
- -to become aware of an individual's stages of personality development
- -to identify personal values involved in decision making
- -to be able to identify a career that is in accord with one's interests, aptitudes, abilities, strengths, and weaknesses

II. Students need job acquisition skills:
- -to become familiar with various occupational groups and their titles
- -to gain insight into the nature of these occupational groups and job titles
- -to be able to prepare a resume
- -to be able to read and respond to classified ads
- -to become skillful in filling out job application forms
- -to be experienced in the interview process
- -to be aware of resources available when selecting a job

III. Students need the skills and routines which will allow them to function successfully in jobs/careers:

-to gain interpersonal skills used between employer and employee and among workers
-to exhibit responsibility and dependability by being punctual and maintaining a good attendance record
-to exercise initiative
-to demonstrate reliability by completing assigned tasks
-to show willingness to learn
-to dress appropriately
-to gain confidence and ease in the company of adults
-to learn the language of the workplace

IV. Students need the benefit of work experiences in selecting future careers:

-to explore various career settings and situations
-to acquire and/or improve on-the-job skills such as telephone skills, office or technical machine operation, classroom management skills, computer skills
-to gain self-confidence and self-respect
-to assess whether one's selected career is, in fact, appropriate to one's interests, abilities, aptitudes, strengths, and weaknesses
-to become more assertive

V. Students need the specific language and cultural skills involved in career education coursework and outside experiences:

-to collect in-depth information on a projected career
-to sharpen language skills
-to overcome insecurity about lack of proficiency in English
-to be in an environment in which one must interact with a variety of adults other than teachers
-to become acculturated both to American society and the American workplace
-to become familiar with working requirements in the United States, such as proper documentation or licensing

Educational Philosophy and Methodology

The career education program at The International High School is designed to provide our students with the opportunity to explore their career interests and to apply their developing linguistic, social, and cognitive skills in a meaningful setting. In conjunction with classroom activities, an important facet of the program is the internship, during which time students explore and experience many aspects of work. Students have the opportunity to interact with supervisors and fellow workers, investigate different careers, and apply their emerging job and language skills in various career situations. This program broadens the students' views of themselves and makes them aware of the variety of options available to them in American society. Moreover, the career education program provides a learning context for our students in addition to the classroom to facilitate their language acquisition.

Students, many for the first time, are asked to focus introspectively on questions such as "Who am I?" and "What are my interests, abilities, and aptitudes?" Discussing the world of work is something few students have had a chance to do previously. One of the first things that is covered is the specialized vocabulary associated with the world of work. Students define job titles and classify them into career groups.

Classroom reading activities are tailored to students' varied levels of English. They are given advanced, standard, or simplified reading materials.

Job interviews are conducted in class through role playing, and video tapes are used to enhance interviewing skills. These performances are analyzed, and conclusions are drawn as to proper answers, decorum, and body language.

Students support each other in different class activities. They work collaboratively to write their resumes and learn word processing. They help each other to select their internships and to practice job interviews. They interact in seminars by sharing their internship experiences and by suggesting remedies to problems. Students who have previously been on internship relate their experiences to others. Students talk about their duties, responsibilities, work environments, supervisors and co-workers, and growth.

Recommendations

The following are suggestions which we feel will enable us to better meet the needs of our students in the career education program.

The career education curriculum guides currently in use were designed for Middle College High School students, many of whom are native English speakers. The International High School career education faculty should revise these guides to produce an edition specifically geared to meeting the needs of International High School students. In addition, we should acquire new texts, videos, and other resources which are particularly suitable to engage and instruct a non-native English speaking student population.

Our students' multilingual abilities are an asset and a potential resource for their varied work communities. We should expand our existing pool of internship sites to add sites at which our students' native language competencies and cross-cultural experiences can serve as the resources that they are. Also, we should add more sites to our catalog to include those which offer experiences in fashion, technical-mechanical, retail sales, restaurants, and other career areas requested most often by our students.

The career education faculty must work with internship site supervisors to support our students' desire for responsible and stimulating work experiences. As an integral part of our relationship with sponsors, we should initiate an orientation process for internship supervisors during which they can learn about the purposes of our internship program and the unique character of our students.

We must stress the responsibility of the site supervisors to instruct the interns in our on-going site visits and contacts, facilitating the development of a plan of activities for the internship.

In addition, our students must be taught how to initiate and carry out positive negotiations with their internship supervisors to increase their level of responsibility on the job.

Internship sites for our students are chosen from a catalog common to Middle College High School and International High School students. A mutually beneficial exchange of information should take place among interns and career education faculties of the two schools to share their knowledge of internship experiences and sites.

We suggest that college advisement be linked to the career education program, as the overall purpose of this program is to enable students to explore their future career choices.

Career education faculty should establish a folder for each student, containing information regarding career interests and internship experiences. This folder should be used when advising students for college.

Furthermore, we have acquired MetroGuide. It is an invaluable source of information on all American colleges and universities, the programs they offer, their admission policies, and financial aid opportunities. This is an extremely useful tool at the disposal of career education faculty, house advisors, and other concerned faculty.

Science

Our technological society sets the backdrop for what students need from their experience at The International High School. It is unfortunate that at a time when there are demands from our increasingly technological society for more scientists and engineers, the percentage of students enrolling in science courses, particularly physics and chemistry, has declined nationwide. One of the reasons for this decline has been the rigorous emphasis on physics as applied mathematics. This has precluded those students whose mathematical level did not allow them to participate in such a course.

All students need to have an exposure to the ideas of science. This exposure should include both the physical sciences and the biological sciences.

Students need to understand the reasons why science is powerful and to understand the methodology used by scientists. At the heart of science is experimental verification of hypotheses. Students need to learn observation, collection and analysis of data, and to discover how variables are related to each other. As students move through their high school experience, they should begin expanding their ability to think critically. They should learn to recognize gaps in available information, discriminate between observation and inference, and probe for assumptions.

The qualities of thinking that we should aim for in science are:

An understanding of the scientific process and method

Broad communication skills that allow students to express their thinking and learn from each other

The ability to transfer learning to new situations.

For the limited English proficient students at The International High School an additional goal is to increase fluency in English as well as to learn the language particular to science.

Perhaps some of the goals of the science program could be clarified by considering the following questions: What do we expect students to have acquired in their science courses in high school? What differentiation, if any, should we make between those who will major in science or engineering and those who will be non-science majors? Our goal is to produce in-depth, analytical science courses designed to be offered to all students. The following

responses, published by the Committee on Pre-College Education of the American Association of Physics Teachers, indicate support from higher education for this approach.

A. B. Arons of Amherst College states

Far more important than exposure to specific areas of subject matter is the attitude students bring to what constitutes knowledge and understanding of physical concepts and natural laws. If their 'knowledge' takes the form of name-dropping, rather than of awareness in their own simple words of the genesis of the idea that precedes the name, then it is virtually impossible to capitalize effectively on their secondary school experience.

Herman Branson of Howard University says

The secondary school course could well emphasize fewer units but treat them in a more analytical fashion. A major weakness of students is a lack of experience with problem-solving even that demanding no more mathematics than normally acquired in the earliest secondary school grades. It would be far better to have a few topics requiring genuine thought, reading in the library, analysis of data, graphs and the writing-up of these few as little papers, perhaps for presentation to the science club, than to undertake a host of cook-book exercises.

Neher, Lauritsen and Vogt of California Institute of Technology respond

A high school science course should be a liberal arts type of course, stressing the fundamental aspects of physical phenomena. In view of the importance placed on fundamental principles, we see no reason to give a different science course to students who may have different plans for the future. Students who will not go on in science should have an appreciation of science as an intellectual discipline; for those who will study science further, such an appreciation is the best possible preparation.

Broad Considerations in Designing Courses

In designing courses, various curricular options must be considered and balanced. Four critical areas are:

Quantitative-Mathematical vs. Qualitative-Conceptual

Broad exposure vs. Specificity, in-depth treatment of topics

Lecture orientation vs. Project-oriented, individual, and group work

Learning facts, a body of knowledge vs. Learning process, inquiry.

Quantitative-Mathematical vs. Qualitative-Conceptual

The problem with beginning an introduction to the physical sciences with a highly mathematical course is that the student does not have the context in which to hold the mathematical manipulations and is, therefore, less able to see their implications. In addition, by eliminating the mathematical filter, it is possible for everyone to succeed. By keeping the language of the course closer to everyday English as opposed to a highly technical or mathematical language, we also support the needs of the limited English proficient student.

In the biological sciences, for example, a beginning course that emphasizes highly technical words is not appropriate to our limited English proficient students.

Paul G. Hewitt, author of *Conceptual Physics,* analyzes it in the following way.

> As instruction is today, we introduce our students immediately to the rigors of quantitative physics, with a consequent weakness in qualitative understanding. I'm certainly not suggesting the elegant language of mathematics be banned from instruction. What I am suggesting is that it makes good sense to postpone it for a semester and instead focus on conceptual physics and provide our students with a good look at the overall forest before they make measurements of any single tree.

Hewitt goes on to underline that "conceptual" does not mean an absence of rigorous thinking.

Broad exposure vs. Specificity, in-depth treatment

Achieving more sophisticated thinking skills requires interactions with other students and adults that lead the student to think critically. If we attempt to expose students to many things superficially, we will not achieve the kind of thinking to which we are committed.

In choosing topics, whether they be traditional or non-traditional, they should be topics that are naturally motivational. There should be something useful that comes out of the inquiry.

Human Development, a course in sex education given to students in their second year at The International High School, is an example of a course designed to provide broad exposure to a topic. In Human Development, most aspects of a teenager's life are examined: peer pressure, self-awareness, drugs, sexuality, sexually transmitted diseases, etc. These form the basis for class discussions which lead to an awareness of relevant scientific information and the effects of cultural backgrounds on thinking. With this knowledge, students are in a better position to make informed life choices and have a context for appreciating scientific investigation.

Lecture orientation vs. Project-oriented, individual, and group work

One of the most difficult problems facing a teacher is that students learn at different rates and in different ways. By creating a structure that allows them to choose, we are acknowledging individual differences. It is to be expected that some students will move through the material faster than others and interact with the subject in different ways. The social environment of the classroom should emphasize encouragement and support for one another.

By allowing students to choose from a variety of activities, such as library research, computer tasks, laboratory experiments, text related activities, listening, and writing, they are encouraged to work both individually and in small groups. The role of the teacher in this *open* style classroom is shifted to that of facilitator and mentor rather than the source of information. There are times when it is appropriate to introduce topics and have follow-up discussions as an entire class. The emphasis is on students learning rather than on teachers teaching. The goal is to have students increasingly accept the responsibility for their learning process and to become aware of their own best strategies for learning.

Having groups of students work on varied projects at their own pace capitalizes on heterogeneous groupings of students. It allows for individual differences in a way that the lecture approach cannot. At present in physics classes, about 80% of student time is spent in individual and small group work.

Learning facts, a body of knowledge vs. Learning process, inquiry

Students need a balance between acquiring a body of knowledge and learning the process by which that knowledge is established. The comments of Richard Feynman in his article "What is Science?" may help to clarify the facts vs. inquiry issue. He states:

> This phenomenon (learning from each other) of having a memory for the race, of having an accumulated knowledge passable from one generation to another, was new in the world. But it had a disease in it. It was possible to pass on ideas which were not profitable for the race. The race has ideas, but they are not necessarily profitable. So there came a time in which the ideas, although accumulated very slowly, were all accumulations not only of practical and useful things, but great accumulations of all types of prejudices and strange and odd beliefs. Then a way of avoiding the disease was discovered. This is to doubt that what is being passed from the past is in fact true and to try to find out *ab initio* again from experience, what the situation is, rather than trusting the experience of the past in the form in which it is passed down. And that is what science is; the result of the discovery that it is worthwhile rechecking by new direct experience, and not necessarily trusting the race experience from the past. I see it that way. That is my best definition....
>
> Finally, with regard to this time-binding, a man cannot live beyond the grave. Each generation that discovers something from its experience must pass that on, but it must pass that on with a delicate balance of respect and disrespect, so that the race (now that it is aware of the disease to which it is liable) does not inflict its errors too rigidly on its youth, but it does pass on the accumulated wisdom, plus the wisdom that it may not be wisdom. It is necessary to teach both to accept and to reject the past with a kind of balance that takes considerable skill.

Students need to be exposed to accumulated wisdom or facts, if you will, as well as to an appreciation that everything written in a book is not necessarily true. Facts, information, and theories allow us to navigate

through the maze or our experience and make sense of it. We all need that. We also need to be able to examine the validity of this accumulated wisdom.

Considerations for Physical Science Courses

Curriculum works best when it is based on important ideas or concepts. These ideas always manifest themselves in a specific context or content. The interactions of the student with his/her peers and the teacher through the content allow the student to acquire skills, habits, and attitudes which empower the student. When the content is selected with the student's reality in mind, it will be most engaging. The curriculum works most effectively when the content connects with both important ideas and with skills which the student can see are valuable to him/her.

Students begin their study of physics with the content connected to motion. The following ideas or concepts are important.

1. Nature is not capricious: there is order, cause and effect to what occurs in our environment.

2. Certain events are governed by laws of probability.

3. Motion in our everyday lives is governed by Newton's three laws of motion.

4. The force of gravitation can be determined and expressed in a relatively simple mathematical relationship. An understanding of gravitation explains much of the macroscopic universe... from why you are held in your seat at this moment to the forces holding our solar system together.

5. There are things in nature that do not just appear or disappear. There are laws of conservation. These laws or accounting systems allow us to track and to predict events.

6. The explanation of our macroscopic world is ultimately based on our understanding of atoms.

7. Understanding the forces that operate in our universe allows us to understand and alter our environment in a controlled way.

The content or context in which these ideas are explored in physics include experiments such as:

1. Measuring the velocity of moving objects,

2. Measuring the velocity and acceleration of falling objects,

3. Measuring momentum and verifying the law of conservation of momentum,

4. Using computers to extend our ability to measure and record,

5. Adding forces and using vectors to find the result of several simultaneous forces,

6. Estimating the diameter of small objects such as BBs and oleic acid molecules, and

7. Analyzing the relationship between forces and stretching for elastic objects (Hooke's law) and demonstrating that relationship using graphs.

Certain skills, habits, and attitudes are intended as a result of the student experimentation.

1. Students learn to measure quantities and events using standard laboratory apparatus including balances, stop watches, meter sticks, graduated cylinders, micrometers, computers, and force tables.

2. Students learn to record, graph, and interpret the data from the experiments.

3. Students learn to describe their observations and analyze results in English.

4. An emphasis on collaborative group work allows them to develop the habit of learning from and assisting each other.

5. The communication skills used in working collaboratively support their English acquisition.

6. Students learn that they can do physics and understand the world around them.

The context or content of studying motion allows access to the important ideas of physics while simultaneously providing students with skills, habits of thought, and respect for themselves and others.

Another course, based on electricity, also provides students access to the ideas of physics as well as skills that they recognize as valuable. The impact of the control and use of electricity on our lives is enormous. As many of the measurements involving electricity are less direct than the ones in motion, the topic is less accessible to the beginning student. Measuring a voltage is less direct than measuring time or distance. Students recognize this and enjoy knowing how electrical things work. By constructing something useful such as a radio, they have the opportunity to see how ideas can have useful results.

Considerations for Biology Courses

In the biological science courses, specific concepts need to be emphasized.

1. Each student is a part of the biosphere, living things, and the environment.

2. Each student is in control of a large part of his/her personal life.

3. By their actions, students can control their health and the quality of life they will live.

4. Students should be aware that things they do can affect the biological world around them and they have a duty not to alter the ecological balance in an adverse way.

5. Students should be aware of the difference between biological imperatives and cultural influences and make decisions about their lives once they have set priorities as to the importance of each.

6. Biological processes are a result of chemical reactions, i.e. natural processes.

7. Results or information in biology is the product of careful observation and experimentation.

In the biological sciences, students may concentrate on improving their powers of observation while in the physical sciences, experimentation, collection, and analysis of data are emphasized. In both, the object is to better understand the world in which we live.

Heterogeneous Groups, Standards, and Expectations

Once we come to grips with the fact that students have an incredible variety of cognitive and linguistic skills, varied educational and cultural backgrounds, and varied levels of English proficiency, we must design classroom structures to meet those needs.

Using a combination of individual and group work, it is possible for both senior students with good skills and entry level students with poor skills to benefit. The benefit to the slower student is having a model in the classroom and assistance from peers. The advanced students learn to meet high expectations in an atmosphere where variety is expected and to expand their responsibility to include others. They do not start at the same place, they do not end up in the same place. To apply the same standard to all of them is impossible.

In physics, the solution at the moment is to rate their mastery of the subject by using a combination of how much work is completed along with a three-level exam system of varying difficulties to determine their mastery. Students earn the highest ratings by completing large amounts of work and by taking the most difficult exams. Students at the other end of the spectrum take very simple exams that involve communicating about the classwork in simple ways and completing a minimum amount of classwork. Students who do not become sufficiently engaged in the class to complete a moderate amount of work or cannot demonstrate understanding in a tangible way, do not receive credit and are encouraged to repeat the course.

It is unrealistic to expect that all students should arrive at a level of science mastery which will allow them to pursue careers in science or engineering. It is unrealistic to expect that after their experience at The International High School students will be less heterogeneous or that they will all need the same amount of time to meet state standards for graduation.

It is realistic to expect that students can find value even when they are operating at a level below that which we determine to be the minimum for passing. It is realistic to expect that structures in our classrooms make it challenging for the brightest as well as the slowest. It is realistic to expect our

students to participate in college courses when they are ready. It is realistic to expect that students enjoy their science courses and find them valuable and engaging. It is realistic to accomplish the goal of learning English by studying science. It is realistic to expect some of our students to pursue careers in science, engineering, and medicine.

Recommendations

Longer class sessions would facilitate experiments and encourage group work. They would encourage a more in-depth interaction with the subjects taught. Longer class sessions would also mean that a student could concentrate on fewer subjects at a time. Class schedules which coincide with the college schedule would make it easier for students to take college courses.

We need to acknowledge and address the fact that students may not achieve the mastery levels necessary for graduation in three years in a way that does not create tracking or institutionalized remediation.

Exploring careers within the sciences should be included as a part of our science courses.

Students should be exposed to a balance of the biological and physical sciences.

In order to meet the need for students to be able to transfer learnings to new situations, we should encourage a broader interdisciplinary integration of our course offerings.

If we are to offer science courses based on experimentation and group work, we need more use of laboratory space.

A Future Science Program

Much emphasis today in science stresses unification rather than the fragmentation of science. At one time, all science was called natural philosophy. Fragmentation of this unified discipline began in the 18th century and continued until recently. In keeping with the new assessment of the body of knowledge which falls under the umbrella "science," perhaps we need an alternative to a biology lab, a chemistry lab, and the physics lab. The creation of a large, connected space called The Science Center where areas of

biology, chemistry, and physics could be operating simultaneously and interdependently might better represent science.

The Science Center could be staffed by science teachers representing the traditional disciplines, working together, giving a sense of collaboration and unity. The work in such a center could be oriented to completion of projects of varying complexity and duration. The center could be staffed beyond the usual school day to allow interested students to work during lunch, preparation, and after school as well as scheduled time in the center. The center might also allow for an increased articulation with college students and faculty sharing the facility.

Mathematics

A primary goal of The International High School is to graduate each student with a high school diploma. It is understood that the development of English language skills is our students' most important means to achieve this goal. We also hope that our students will be equipped with the necessary skills and knowledge to contribute their talents to this increasingly technological society. We hope that our students will develop mathematical and thinking skills that will enable them to work in the technical professions our nation so desperately needs. Thus, we feel that developing skills in mathematics and science is a goal secondary only to our students' English language development.

To better understand the methodologies and approaches used in teaching mathematics at The International High School, it is necessary to understand the nature of our student population. Many students arrive at The International High School with a commendable knowledge of mathematics. Many students are able to take college courses by their junior year. However, many students arrive lacking basic computational skills and mathematics concepts. Students in need of remediation come from Asia, Latin America, the Middle East, and Eastern Europe. Add to this the need for learning English, and it becomes clear that students need a different approach from traditional high school classrooms. While the importance of language learning in mathematics cannot be downplayed, the fact is that students often learn mathematics with less speaking and writing than in other subject areas. Thus, for many foreign students, mathematics becomes a subject in which they can achieve academically and obtain great satisfaction.

The foundation of the mathematics program rests on infusing ESL techniques into the curriculum and encouraging collaboration in the classroom. However, for students to succeed in the classroom, they must come with certain fundamental skills and knowledge. Those students who are ready for high school mathematics are placed in a Sequential Mathematics I class (unless they have already passed such a class). The International High School places students who speak different languages into the same classes, regardless of their level of English language proficiency. As long as students have basic mathematics skills, they are placed in the same class. Students work collaboratively and learn, not only mathematics, but English from each other. It is expected that students will be able to finish each of the Sequential Mathematics courses within three cycles. Students who have trouble with this pace may elect to take more time to finish the courses.

We hope that all students who graduate from The International High School will be able to demonstrate a competency in basic mathematics, algebra, geometry, and at least a cursory knowledge of basic trigonometry. More specifically, we want students to possess enough knowledge to enter a pre-calculus or calculus course in college. We also hope that all students, whether or not they choose to go to college, will be able to meet the mathematics demands of their careers and personal lives.

The study of mathematics trains students in a process of logical thinking vital to their futures. After studying mathematics in The International High School, therefore, we also hope that students will be able to approach all problems more systematically, not necessarily only those mathematical in nature. We hope that students will learn a systematic way of approaching a problem by learning how to break it down and use a variety of resources to achieve the solution. We try to show a correlation between how students solve problems in math class with how they solve problems in their other classes and in their personal lives, such as managing time, preparing meals, choosing a career, etc. They learn mathematics skills in their math classes, as well as how to solve practical problems.

Studying mathematics also develops discipline. It shows students that they can learn even abstract concepts which seem to have little bearing on their present lives by systematically solving problems and practicing new concepts. Studying mathematics develops students' abilities to learn other disciplines because the discipline of mathematics forces them to think. Because problems are presented in English and are worked out collaboratively with students from varied language backgrounds, English language skills are also developed.

Strategies

The students of The International High School share the common experience of being recent immigrants to our country. Our task is to utilize these experiences and prepare our students to participate in a technological society. Our goal in mathematics courses is to train students to incorporate logical thinking into their lives. Coming from many different educational settings, our students are not always ready to function within a traditional setting of whole-class instruction. We believe that, by presenting materials that are challenging within a collaborative setting, students will begin to discuss, analyze, and draw inferences, while learning English. We also want to give our students an appreciation of mathematics and its function in society. By far, our greatest challenge lies in developing in students the

patience required for what is not easily achieved and the fortitude to try again until a solution is reached.

Collaboration in the classroom resembles the team approach often found in the workplace. The team approach is an important element in task-oriented projects. As the team functions to complete a project, the input from all members of the team is essential for the completion of the task. Collaboration in the mathematics classroom models this technique.

We believe that working in groups allows students to become responsible learners. Each student learns from others by posing questions and clarifying ideas. It is in this interchange of ideas that learning takes place. Students who are advanced are given an opportunity to help others, while students in need of help have a greater chance of receiving support from their peers. Group work requires students to participate actively in projects. When students are graded based on the explanations and performance of the weaker members of the group, students learn to interact effectively.

Collaboration also furthers human relations. The process of working with others towards a common goal, depending on others, sharing responsibilities, and trusting others to complete their tasks teaches us much about human qualities. In a school composed of students from many different ethnic and linguistic backgrounds, this experience goes beyond the scope of merely facilitating the learning of subject matter.

Accepting collaboration as a framework in the mathematics classroom has many implications that affect the mathematics curriculum. The use of collaboration enlarges the curriculum. The following example shows how mathematics can incorporate skills from other disciplines.

Having students create a budget leads to focusing on individual needs, career education, housing, the needs of society, and current problems of city living. In life, mathematical problems do not occur in isolation; in business, mathematical problems are linked to other areas. In both cases, the task of the problem solver does not lie in knowing specific formulas, but rather rests on knowing how to reach logical conclusions. Problem solving is a tool that is needed in the classroom as well as in life.

An effective step to problem solving is to have students create their own problems. The act of composing a problem and studying its component parts provides students with insight into strategies for solving problems. When we analyze the steps in problem solving, we begin to see that an array of skills is at work such as, reading, drawing conclusions, and decision

making. It is our belief that teaching students to develop sequential, logical thinking through problem solving will help them beyond high school.

The heterogeneity of our school population mandates that other support systems be made available to students. Peer tutoring should be made available to all students in all mathematics classes. The use of different strategies such as vocabulary development, using writing to explain how a problem is solved, and keeping journals enables students to become competent in the language of mathematics. By engaging students to participate in describing a process orally as well as in writing, sequencing the steps to a problem, or explaining how an algorithm is solved not only advances mathematical knowledge, but also furthers competency in language learning. When students grapple with the language and find ways of making themselves understood, learning is taking place.

A key educational principle which forms the basis of the instructional design of The International High School is the knowledge that "language skills are most effectively learned in meaningful contexts." The task of the mathematics teacher is to create a series of contexts which will promote greater understanding of mathematics.

The infusion of second language acquisition strategies, such as the development of mathematical and non-mathematical vocabulary and idioms, serves to advance competency in English. Furthermore, posing critical thinking and process-oriented questions furthers cognitive and linguistic development in the mathematics classroom.

School Support for Mathematics

To further develop logical thinking in our students, we believe that computer course offerings in Basic and Pascal are needed. In addition, students should have access to various computer software to be used for SAT preparation and RCT tutoring. It is our belief that mathematics instruction should integrate the latest technology. Therefore, we believe that a software library is needed.

We believe that mathematics is essential to the overall educational development of students and of the nation. In order to enhance the career education program and improve their job placements, we believe that mathematics courses should be ongoing for all students. We believe the practice of students taking only minimally required courses will rob them of an experience which may harvest its rewards years after graduation.

It may be possible to redesign the courses offered. Some courses may be linked to other disciplines in order to give students a global outlook. Wouldn't it be wonderful to offer a course on the global economy and focus on imports and exports of different countries? Or why not explore the city budget? Students must learn to see the parts as well as the total picture.

Mastery is a way of looking at the logical conclusions of one's own statements in a disinterested way, based on the principles of the discipline. It is our goal that our students, as a result of participating in mathematics classes, will develop the ability to follow a method of logical thinking that will carry over into every sector of their lives.

It has been said that the only thing certain or constant about adolescence is change; dramatic and often traumatic change irrevocably rends individuals from the safety and security of childhood and thrusts them into the uncertainties and responsibilities of adulthood. Young people confront circumstances and realities which challenge their perceptions of both themselves and the world around them. Changes in physical development, new social relationships, increased family responsibilities; heightened awareness of the sexual, political, and economic forces which influence people's destinies, all disorient and confuse high school students.

In addition to the usual problems of adolescence, students of The International High School have another set of concerns as immigrants. The International High School students all face the challenge of mastering a new language and adjusting to values and customs which may be extremely alien and confusing. Our students need to adapt to unfamiliar circumstances, reconcile discrepancies between past and present cultural traditions, and develop strategies for dealing with the less acculturated members of their own families or households. Many students are from fragmented or single-parent households.

Finally, at the same time that our students are struggling to reconcile conflicts between the past and the present, they must also respond to the challenges of the future. They must formulate personal and career goals for themselves and develop practical strategies and academic pathways by which to achieve them. Exploring future prospects can be an exhilarating and a terrifying experience for young adults. At The International High School, the entire staff is dedicated to providing support services to help address these student needs.

Support Services : A Comprehensive and Collaborative Approach

Unlike the situation at many high schools where students' affective needs are arbitrarily separated from academic pursuits and consigned to a few guidance counselors, at The International High School virtually all staff members participate in the delivery of support services. Subject and house (homeroom) teachers, paraprofessionals and teacher assistants, family workers, counselors, administrators, secretarial, and security personnel, all provide counseling to students on an as-needed or on-request basis.

To provide support services in a more systematic way, a two-part guidance plan has been designed. Part of this plan involves weekly, seventy-minute, small-group house meetings. Each house consists of approximately fifteen students and one or more house advisors (staff members). House meetings are designed to meet a variety of student needs. They allow for: (1) discussion of school-related issues; (2) exploration and sharing of common personal, social, or developmental concerns; (3) establishment of peer-support networks among house students; (4) modeling and practice of study skills and work habits; and (5) the promotion of mentoring relationships between students and house advisors and among students themselves.

The second part of the guidance plan involves guidance teams which have been created to monitor the progress and development of all students in the school. Each guidance team is composed of one or more house advisors, a family assistant, a guidance counselor, and a peer counselor. The guidance team supervises the academic progress and social development of students by reviewing daily and cumulative attendance and cutting data, participating in the updating of permanent records and progress sheets; and by consulting with subject teachers, other school personnel, and among themselves.

One of the principal functions of the guidance team is to identify as early as possible those students with special needs or problems and to determine appropriate interventions and strategies by which to assist such at-risk students. The guidance team can select from a variety of interventions: conducting individual and/or family counseling sessions, arranging for academic support via teacher or peer tutoring, placing students in counseling support groups at the school, or referring individuals to outside agencies. The guidance team also acts as a resource network and clearing house for school staff members by soliciting and disseminating strategies which have proven effective in assisting at-risk youths.

Special Features of The School's Support Services

Recognizing the tremendous influence that peer attitudes play in shaping and molding the values and behaviors of young adults, the school has sponsored several programs which encourage peer-mediated intervention and support: the peer counseling program, leadership seminar, student court, and Project Adventure. These programs train participants to accept responsibility and express concern for others in caring and supportive ways. Programs such as these promote student initiative and encourage collaboration as a means of addressing common concerns.

Students need to perceive unity and coherence between their school and family lives. Several outreach programs have been introduced to promote greater parental involvement in the life of the school and to help bridge the gap between foreign and American educational philosophies and practices. These include: (l) an English-language instruction class for students' families; (2) parent support groups, organized according to common language and culture; and (3) an at-home tutorial program in which The International High School students provide instruction to their families or household members.

Developmental Groups

The utilization of developmental or support groups is a particularly effective strategy to assist the most at-risk students at The International High School. Students are selected for "group" based on a history of one or more factors: truancy, academic failure, substance abuse, problems with peers, family problems, difficulties in adjusting to a new culture, etc. Groups consisting of about ten students and facilitated by a guidance counselor meet four days each week for a trimester.

The groups provide students with an atmosphere of mutual trust and freedom of expression. This environment allows each group member to move toward greater self-acceptance and to realize his/her possibilities for growth. Through groups, students learn interpersonal communication skills. Groups provide students with the tools to develop strategies for coping with personal and family difficulties.

Because of its dynamic quality, group counseling is a more efficient and effective intervention than individual counseling in bringing about behavioral changes in adolescents.

The Career Education Program

Due to the comprehensive nature of The International High School's career education program, students receive a great deal of career advisement and guidance. Each year, students participate in campus-based career education courses and experiential learning experiences (internships). These experiences provided students with a great deal of guidance while they support students in selecting appropriate careers.

Students have the opportunity to identify their values, clarify their attitudes towards work, make observations about their relationships with others, examine their personal strengths, and understand the relationship between decisions and outcomes. By their senior year, students design a plan for their future based upon insights previously gained in the program. Furthermore, the internship experience develops motivation and, ultimately, a sense of self-worth.

Each student is assigned to a career education supervisor who maintains a close relationship with that student over three years. The relationship binds together all the programmatic elements of the career education sequence while at the same time establishing a mutually trusting relationship that is essential to adolescents.

The College Setting

The location of The International High School in the heart of LaGuardia Community College provides a strong affective influence on students. The college setting provides an atmosphere in which high school students subtly modify their behavior to be accepted by the college population. The younger students, wishing to fit in and be accepted by college students, behave appropriately. The presence of these visible peer models enables The International High School students to see themselves as college students. They feel proud carrying a college ID, enrolling in college courses, and working out in the college gym. Their participation in college life has a positive impact on their adolescent self-image. College becomes a less foreign place. Students more readily accept the advantages of continuing their education beyond high school.

The International High School

The International High School opened on the campus of LaGuardia Community College in September, 1985. This collaborative project, jointly sponsored by the Board of Education of the City of New York and the City University of New York, offers limited English proficient students a high school/college curriculum combining substantive study of all subject matter with intensive study and reinforcement of English. The goal of the instructional program is to enable each student to develop the linguistic, cognitive, and cultural skills necessary for success in high school, college, and beyond.

The International High School has replicated successful strategies and practices developed at LaGuardia's Middle College, a public alternative high school founded in 1974. All graduates of The International High School are guaranteed admission to LaGuardia Community College. While enrolled in the high school, students may take courses in a variety of areas for both high school and advanced placement college credit. Courses specifically designed for high school students and taught by college professors are available. Students at The International High School are members of the college community, enjoying full use of the facilities including the library, gymnasium, cafeteria, and recreational programs.

The educational principles which underlie the instructional and curricular design of this school are as follows:

1. Limited English proficient students require the ability to understand, speak, read, and write English with near-native fluency to realize their full potential within an English speaking society.

2. Fluency in a language other than English must be viewed as a resource for the student, the school, and the society.

3. Language skills are most effectively learned in context and embedded in a content area.

4. The most successful educational programs are those which emphasize rigorous standards coupled with effective support systems.

5. Attempts to homogeneously group students in an effort to make instruction more manageable preclude the way in which adolescents learn best, i.e., from each other.

6. The carefully planned use of multiple learning contexts in addition to the classroom (e.g., learning centers, career internship sites, field trips) facilitates language acquisition and content area mastery.

7. Career education is a significant motivational factor for adolescent learners.

8. The most effective instruction takes place when teachers actively participate in the school decision-making process, including instructional program design, curriculum development, materials selection, faculty hiring, staff training, and peer evaluation.

Collaboration with the college substantially enhances the capacity of the high school to develop an educational program which embodies these principles.

The faculty members of The International High School utilize *English as a Second Language* techniques as a means of reinforcing English language development and facilitating the acquisition of content across the curriculum. An ESL approach differs from English language instruction provided to native speakers of English. It is distinguished by its attention to: the problems encountered in acquiring a new language, sensitivity to other cultures, and understanding of how the native languages of limited English proficient students compare and contrast with English. ESL stresses the development of English language listening, speaking, reading, and writing skills so that students learn to communicate effectively within the standard spoken and written conventions of the language.

As students move from concrete to abstract levels of language acquisition, teachers present the content in greater complexity while maintaining a level of comprehensible input commensurate with the student's level of English skills development. Collaborative learning strategies encourage students at different levels of English language acquisition and academic preparation to work in small groups as they explore their subject area studies. With the teacher functioning as a facilitator, students are taught to rely upon themselves and each other for revision of written assignments, study and development of vocabulary, and mastery of content. They are encouraged to utilize their native language skills to support their learning of English and to regard their own cultural

backgrounds as well as those of other students as classroom resources to enhance and enrich their learning experiences.

A career/occupational education program serves as a focal point of The International High School. All students participate in an out-of-school internship program for one third of each school year. This graduation requirement allows students of limited English proficiency to investigate careers in business technology, human services, and liberal arts and sciences while providing them with opportunities to reinforce their English language skills and further develop their native language proficiencies within the context of the workplace.

Extended-day study opportunities are provided. Students participate in small group tutorials designed to promote communicative competence in English, reinforce native language skills, extend content area studies, and explore career education alternatives. Extracurricular teams and clubs, as well as an ESL class for parents, are also offered.

Admission to The International High School is open to all newly arrived New York City residents for whom high school placement is appropriate. For admission consideration, students must be limited English proficient (as determined by a test score below the 21st percentile on the English version of the *Language Assessment Battery*), and have resided in the United States for fewer than four years. Junior high school students who apply for admission, in addition to meeting the previously stated criteria, must be referred by their guidance counselors as requiring an alternative educational environment to realize their full potential. Over-the-counter entrants from overseas must be referred by the Board of Education's Office of High School Admissions as students who would benefit from this alternative academic setting.

For the 1987-88 school year, there were 300 immigrant students in grades 10-12 enrolled at The International High School. They came to us from 37 countries speaking 32 languages other than English and ranged in age from 14 to 21 years old. These young men and women represent a broad spectrum of English language proficiencies, native language abilities, literacy skills, and prior academic preparation. Present plans call for the school to reach an enrollment of 400 students in the next school year.

Evaluation results for our first two years have been encouraging. Nearly half of the students who started with us in September 1985 were no longer considered limited English proficient by the end of their first year as measured by the English version of the *Language Assessment Battery*, with

87% showing gains in their English language development. The passing percentage for all classes taken during this two-year period was 86%. There were no dropouts during the 1985-86 school year and 3 students, or 1.6%, during the 1986-87 school year. Average daily attendance for both years was 95%, the highest attendance rate of all high schools in the City of New York.

The International High School received a gold medal awarded by the Council for the Advancement and Support of Education (CASE) in a national search for institutions "demonstrating the greatest effectiveness with a new or improved partnership between a high school and a college." The National Council of Teachers of English (NCTE) conferred "Center of Excellence" status on the school in its nationwide effort to identify exemplary English language arts programs. Competitive grants were awarded by the City University of New York in collaboration with the Board of Education and by the State Education Department to further innovative practices in the areas of faculty development and parental involvement. As a result of these achievements, Public/Private Ventures, a Philadelphia-based research firm contracted by CUNY to evaluate the school, has recommended that the International approach should be replicated in secondary schools throughout New York City.